

Notice of Allowability

Application No.

10/717,772

Examiner

Jane Rhee

Applicant(s)

UCHITOMI ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/11/2007.
2. ☒ The allowed claim(s) is/are 5-12, 20-26, 28, 32, 35, 38, 41, 43-47 and 50.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/1/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Dahlen on August 1, 2008.

The application has been amended as follows:

Claim 43, line 14, "." deleted and --, wherein the positive electrode comprises a positive active material having a different composition and smaller mean particle diameter from the lithium-containing complex oxide represented by the General Formula and wherein the positive electrode comprises a lithium-containing complex oxide represented by General Formula: $\text{Li}_{1+a+b}\text{R}_{1-a}\text{O}_2$ (where $0 \leq a \leq 0.05$ and $-0.05 \leq a+b \leq 0.05$, and R is at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Co, Cu, Zn, Al, Ge, Zr and Sn) .— has been inserted.

Claim 45, line 16, "." deleted and --, wherein the positive electrode comprises a positive active material having a different composition and smaller mean particle diameter from the lithium-containing complex oxide represented by the General Formula and wherein the positive electrode comprises a lithium-containing complex oxide represented by General Formula: $\text{Li}_{1+a+b}\text{R}_{1-a}\text{O}_2$ (where $0 \leq a \leq 0.05$ and $-0.05 \leq a+b \leq 0.05$, and R is at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Co, Cu, Zn, Al, Ge, Zr and Sn).— has been inserted.

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Claims 48-49 are cancelled.

Claim 50, line 1, "claim 49" deleted and —claim 45—has been inserted.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The prior art fail to teach, suggest, or provide a rationale to one in the ordinary skill in the art to provide a lithium-containing complex oxide B having a mean particle diameter smaller than the mean particle diameter of the secondary particles of the lithium-containing complex oxide A, the lithium-containing complex oxide B having a different composition from lithium containing oxide A and being represented by general formula $\text{Li}_{1+a+b}\text{R}_{1-a}\text{O}_2$ (where $0 \leq a \leq 0.05$ and $-0.05 \leq a+b \leq 0.05$, and R is at least one element selected from the group consisting of Mg, Ti, Cr, Fe, Co, Cu, Zn, Al, Ge, Zr and Sn). Applicant teaches that the lithium containing complex oxide having a smaller mean particle diameter enters gaps between the particles of the lithium containing complex oxide of the present invention so as to increase the density of the positive electrode mixture therefore providing a non-aqueous secondary battery that has a large capacity and is excellent in durability under charge/discharge cycles and in storage characteristics at a high temperature (specification pages 2 -7).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Jane Rhee', with a stylized, cursive script.

Jane Rhee
August 1, 2007